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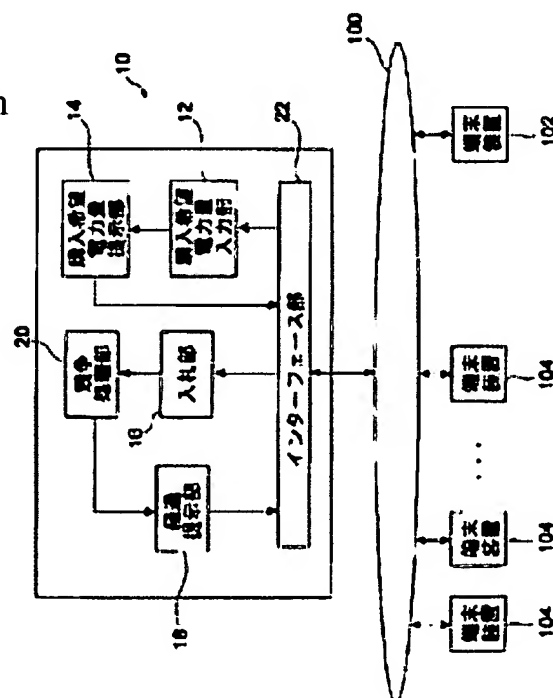
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(54) ELECTRIC POWER BIDDING SYSTEM AND ELECTRIC POWER BIDDING METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an electric power bidding system which promotes competition between sellers who want to sell electric power and makes low the electric power buying price of a buyer who wants to buy electric power.

SOLUTION: The electric power bidding system 10 is equipped with a buy- desired electric energy input part 12 which receives the input of buy-desired electric energy in specific time units from buyers who want to buy electric power, a buy-desired electric energy presentation part 14 which presents the buy-desired electric energy to sellers who want to sell electric power, a bidding part 16 which accepts the input of sell-desired electric energy and desirable sale prices from the sellers who want to sell electric power until a specific time before the specific time



units is started, an elapse presentation part 18 which sequential presents the accepted sell-desired electric energy and desirable sale prices of the sellers who want to sell the electric power to other sellers who want to sell the electric power, and a competition process part 20 which determines a specific seller who want to sell the electric power and from whom the buyer who wants to buy the electric power should buy the electric power among the sellers who want to sell the electric power the specific time later.

JAPANESE [JP,2001-184433,A]

CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE
INVENTION TECHNICAL PROBLEM MEANS DESCRIPTION OF DRAWINGS
DRAWINGS

[Translation done.]

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CLAIMS

[Claim(s)]

[Claim 1]The 1st input means that receives an input of buy desired electric energy in future predetermined time from an electric power purchasing applicant in a power bidding system which bids competitively for electric power, Till the 1st presenting means that presents said buy desired electric energy received by said 1st input means to two or more electric power sale candidates, and predetermined time before said predetermined time begins, From said each of two or more electric power sale candidates to the 2nd input means that receives an input of sell desired electric energy and a sales desired price of the electric power sale candidate concerned in said predetermined time, and said predetermined time before said predetermined time begins, The 2nd presenting means that presents one by one sell desired electric energy and a sales desired price of said electric power sale candidate received by said 2nd input means to other electric power sale candidates, After progress of said predetermined time before said predetermined time begins, based on sell desired electric energy received by said 2nd input means, and its sales desired price, A power bidding system provided with a determination means to determine a specific electric power sale candidate in whom said electric power purchasing applicant should purchase electric power in said predetermined time out of said two or more electric power sale candidates.

[Claim 2]The power bidding system according to claim 1, wherein said 2nd input means enables registration of an input of multiple times from the same electric power sale candidate about said sell desired electric energy and its sales desired price.

[Claim 3]The power bidding system according to claim 1, wherein said determination means determines a specific electric power sale candidate in whom said electric power purchasing applicant should purchase electric power in said predetermined time out of said two or more electric power sale candidates so that the purchase price of said electric power purchasing applicant's electric power may serve as the minimum.

[Claim 4]An electric power bidding method which bids competitively for electric power, comprising:

The 1st input step that connects an electric power purchasing applicant's terminal unit, and two or more electric power sale candidates' of each terminal unit via a network, and receives an input of buy desired electric energy in said electric power purchasing applicant's future predetermined time via said terminal unit.

The 1st presentation step that shows said each of two or more electric power sale candidates said buy desired electric energy received in said 1st input step via said terminal unit.

The 2nd input step that receives an input of sell desired electric energy and a sales desired price of the electric power sale candidate concerned in said predetermined time of said electric power sale candidate via said terminal unit till predetermined time before said predetermined time begins.

The 2nd presentation step that presents one by one sell desired electric energy and a sales desired price of said electric power sale candidate received in said 2nd input step till said predetermined time before said predetermined time begins to other electric power sale candidates via said terminal unit.

Based on sell desired electric energy received in said 2nd input step after progress of said predetermined time before said predetermined time begins, and its sales desired price, A determination step which determines a specific electric power sale candidate in whom said electric power purchasing applicant should purchase electric power in said predetermined time out of said two or more electric power sale candidates.

[Claim 5]The electric power bidding method according to claim 4, wherein said 2nd input step enables registration of an input of multiple times from the same electric power sale candidate about said sell desired electric energy and its sales desired price.

[Claim 6]The electric power bidding method according to claim 4, wherein said determination step determines a specific electric power sale candidate in whom said electric power purchasing applicant should purchase electric power in said predetermined time out of said two or more electric power sale candidates so that the purchase price of said electric power purchasing applicant's electric power may serve as the minimum.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to a power bidding system and an electric power bidding method.

[0002]

[Description of the Prior Art]Retail-power-sales liberalization is being attained in the flow of the deregulation in these days. For example, in Britain which retail-power-sales liberalization follows, one day is divided into the time basis of 48 for every 30 minutes, and the electric power pool system which bids competitively for electric power for every time basis is introduced. In an electric power pool system, the sell desired electric energy which two or more electric power sale candidates of each want to sell to the time basis concerned (supply), and its sales desired price are first inputted to a power bidding system 24 hours before each above-mentioned time basis. The power bidding system concerned sequentially from the electric power sale candidate who presented the cheap sales desired price among the electric power sale candidates who inputted sell desired electric energy and its sales desired price, It selects as those who can sell electric power to the time basis concerned (supply), and selection is ended in the place where sufficient amount of supply (buy desired electric energy in which an electric power purchasing applicant expects purchase) in the time basis concerned was secured. By selecting those who sell electric power to each time basis using this power bidding system, an electric power purchasing applicant becomes possible [purchasing electric power comparatively inexpensive].

[0003]

[Problem to be solved by the invention]However, the power bidding system concerning the above-mentioned conventional technology had a problem as shown below. Namely, in the power bidding system concerning the above-mentioned conventional technology, The sell desired electric energy which two or more electric power sale candidates of each want to sell to

the time basis concerned (supply), and its sales desired price are inputted to a power bidding system 24 hours before each above-mentioned time basis, and those who sell electric power to each time basis based on the input result concerned are selected. therefore -- this fact cannot be known, even if it is a case where a more inexpensive sales desired price is shown from other electric power sale candidates after he inputs specific sell desired electric energy and sales desired price -- moreover -- being concerned -- others -- it cannot oppose to an electric power sale candidate, either. Therefore, competition according to other electric power sale candidates' trend cannot be performed, and, as a result, an electric power purchasing applicant's electric power purchase price does not become inexpensive enough.

[0004]Then, this invention solves the above-mentioned problem, promotes an electric power sale candidate's competition, and makes it SUBJECT to provide the power bidding system and electric power bidding method which can make very inexpensive an electric power purchasing applicant's electric power purchase price.

[0005]

[Means for solving problem]In order to solve an aforementioned problem, the power bidding system of this invention, The 1st input means that is a power bidding system which bids competitively for electric power, and receives the input of the buy desired electric energy in future predetermined time from an electric power purchasing applicant, Till the 1st presenting means that presents the above-mentioned buy desired electric energy received by the 1st input means of the above to two or more electric power sale candidates, and the predetermined time before the above-mentioned predetermined time begins, Till the above-mentioned predetermined time before the 2nd input means that receives the input of the sell desired electric energy and the sales desired price of the electric power sale candidate concerned in the above-mentioned predetermined time, and the above-mentioned predetermined time begin from two or more above-mentioned electric power sale candidates of each, The 2nd presenting means that presents one by one the sell desired electric energy and the sales desired price of the above-mentioned electric power sale candidate received by the 2nd input means of the above to other electric power sale candidates, After progress of the above-mentioned predetermined time before the above-mentioned predetermined time begins, based on the sell desired electric energy received by the 2nd input means of the above, and its sales desired price, It is characterized by having a determination means to determine the specific electric power sale candidate in whom the above-mentioned electric power purchasing applicant should purchase electric power in the above-mentioned predetermined time out of two or more above-mentioned electric power sale candidates.

[0006]showing one by one the sell desired electric energy inputted by the electric power sale candidate of 1, and its sales desired price to other electric power sale candidates -- being concerned -- others -- an electric power sale candidate, After taking into consideration the sell desired electric energy inputted by the sales candidate of the above 1, and its sales desired price,

self sell desired electric energy and its sales desired price can be determined and inputted. [0007]In a power bidding system of this invention, the 2nd input means of the above is good also considering enabling registration of an input of multiple times from the same electric power sale candidate about the above-mentioned sell desired electric energy and its sales desired price as a feature.

[0008]After the electric power sale candidate concerned takes into consideration sell desired electric energy inputted by other electric power sale candidates and its sales desired price, he reconsiders self sell desired electric energy and its sales desired price, and can reinput by enabling registration of an input of multiple times from the same electric power sale candidate.

[0009]In particular, in a power bidding system of this invention, it is preferred for the above-mentioned determination means to determine a specific electric power sale candidate in whom the above-mentioned electric power purchasing applicant should purchase electric power in the above-mentioned predetermined time out of two or more above-mentioned electric power sale candidates so that the purchase price of the above-mentioned electric power purchasing applicant's electric power may serve as the minimum.

[0010]In order to solve an aforementioned problem, an electric power bidding method of this invention, Are an electric power bidding method which bids competitively for electric power, and an electric power purchasing applicant's terminal unit and two or more electric power sale candidates' of each terminal unit are connected via a network, The 1st input step that receives an input of buy desired electric energy in the above-mentioned electric power purchasing applicant's future predetermined time via the above-mentioned terminal unit, Till predetermined time before the 1st presentation step and above-mentioned predetermined time that shows two or more above-mentioned electric power sale candidates of each the above-mentioned buy desired electric energy received in the 1st input step of the above via the above-mentioned terminal unit begin, Till the 2nd input step that receives an input of sell desired electric energy and a sales desired price of the electric power sale candidate concerned in the above-mentioned electric power sale candidate's above-mentioned predetermined time via the above-mentioned terminal unit, and the above-mentioned predetermined time before the above-mentioned predetermined time begins, After progress of the above-mentioned predetermined time before the 2nd presentation step and above-mentioned predetermined time that presents one by one sell desired electric energy and a sales desired price of the above-mentioned electric power sale candidate received in the 2nd input step of the above to other electric power sale candidates via the above-mentioned terminal unit begin, Based on sell desired electric energy received in the 2nd input step of the above, and its sales desired price, It is characterized by having a determination step which determines a specific electric power sale candidate in whom the above-mentioned electric power purchasing applicant should purchase electric power in the above-mentioned predetermined time out of two or more above-mentioned electric power sale candidates.

[0011]showing one by one the sell desired electric energy inputted by the electric power sale candidate of 1, and its sales desired price to other electric power sale candidates -- being concerned -- others -- an electric power sale candidate, After taking into consideration the sell desired electric energy inputted by the sales candidate of the above 1, and its sales desired price, self sell desired electric energy and its sales desired price can be determined and inputted.

[0012]In the electric power bidding method of this invention, the 2nd input step of the above is good also considering enabling registration of the input of multiple times from the same electric power sale candidate about the above-mentioned sell desired electric energy and its sales desired price as a feature.

[0013]After the electric power sale candidate concerned takes into consideration the sell desired electric energy inputted by other electric power sale candidates and its sales desired price, he reconsiders self sell desired electric energy and its sales desired price, and can reinput by enabling registration of the input of multiple times from the same electric power sale candidate.

[0014]In the electric power bidding method of this invention, especially the above-mentioned determination step, It is preferred that it is characterized by determining the specific electric power sale candidate in whom the above-mentioned electric power purchasing applicant should purchase electric power in the above-mentioned predetermined time out of two or more above-mentioned electric power sale candidates so that the purchase price of the above-mentioned electric power purchasing applicant's electric power may serve as the minimum.

[0015]

[Mode for carrying out the invention]The power bidding system concerning the embodiment of this invention is explained with reference to Drawings. First, the composition of the power bidding system concerning this embodiment is explained. Drawing 1 is a block diagram of the power bidding system concerning this embodiment.

[0016]The power bidding system 10 concerning this embodiment, It has the buy-desired-electric-energy input part 12 (the 1st input means), the buy-desired-electric-energy presentation part 14 (the 1st presenting means), the bid part 16 (the 2nd input means), the progress presentation part 18 (the 2nd presenting means), the competition treating part 20 (determination means), and the interface part 22, and is constituted. The power bidding system 10 is connected with the Internet 100 (network) to which an electric power purchasing applicant's terminal unit 102 and two or more electric power sale candidates' of each terminal unit 104 are connected via the interface part 22 here, It is possible to perform transmission and reception of the terminal unit 102,104 of the above-mentioned electric power purchasing applicant and two or more electric power sale candidate of each and data. Hereafter, each component is explained in detail.

[0017]The buy-desired-electric-energy input part 12 receives an input of buy desired electric energy in future predetermined time from an electric power purchasing applicant. More, the buy-desired-electric-energy input part 12 is inputted into details by electric power purchasing applicant using the terminal unit 102, and receives the above-mentioned buy desired electric

energy transmitted via the Internet 100 in them. Specifically, the buy-desired-electric-energy input part 12 receives an input of buy desired electric energy in the time basis concerned from an electric power purchasing applicant, 1 hour before it divides one day into a time basis of 24 for every hour and each of each time basis begins. Buy desired electric energy is electric energy in which an electric power purchasing applicant expects purchase of the above-mentioned time basis here, The above-mentioned electric power purchasing applicant who is an electric supply company to a general consumer is determined by the electric power purchasing applicant concerned based on the amount of prediction predicted as a power demand amount of an electric power supply area of self in the above-mentioned time basis. The buy-desired-electric-energy input part 12 receives an input of the highest purchase price from an electric power purchasing applicant. Here, the highest purchase price is the highest power unit price (a circle/kwh) that an electric power purchasing applicant can admit.

[0018]The buy-desired-electric-energy presentation part 14 presents buy desired electric energy and the highest purchase price which were received by the buy-desired-electric-energy input part 12 to two or more electric power sale candidates. The buy-desired-electric-energy presentation part 14 transmits the above-mentioned buy desired electric energy and the highest purchase price to details to two or more electric power sale candidates' terminal unit 104 via the Internet 100 more. Here, two or more above-mentioned electric power sale candidates of each become possible [referring to the above-mentioned buy desired electric energy and the highest purchase price on the display of the self terminal unit 104].

[0019]The bid part 16 receives the input of the sell desired electric energy and the sales desired price of the electric power sale candidate concerned in the above-mentioned time basis from two or more electric power sale candidates of each. More, the bid part 16 is inputted into details by each electric power sale candidate using the terminal unit 104, and receives the above-mentioned sell desired electric energy transmitted via the Internet 100, and its sales desired price in them. Here, sell desired electric energy is electric energy in which an electric power sale candidate expects sale (supply) of the above-mentioned time basis, and it is determined by two or more electric power sale candidates of each in consideration of the buy desired electric energy of the power supplying of the electric power sale candidate concerned, power costs, and an electric power purchasing applicant, etc.

[0020]Here, the bid part 16 receives the input of the sell desired electric energy in the time basis concerned, and its sales desired price from two or more electric power sale candidates of each till the predetermined time (henceforth bid finish time) before the above-mentioned time basis begins. About the time basis of 11:00 to 12:00 a.m., the bid part 16 sets up ten quotas at 11:00 a.m. which the time basis concerned starts, i.e., 10:50 a.m., for example as bid finish time, and specifically till the bid finish time concerned, The input of the sell desired electric energy in the time basis concerned and its sales desired price is received. If the bid part 16 is till the above-mentioned bid finish time, the input of sell desired electric energy and its sales

desired price for the second time will also be received from the electric power sale candidate who inputted sell desired electric energy and its sales desired price once. That is, the bid part 16 is enabling registration of the input of multiple times from the same electric power sale candidate about sell desired electric energy and its sales desired price.

[0021]The competition treating part 20 carries out ranking of two or more electric power sale candidates of each concerned to order with a cheap sales desired price based on the sell desired electric energy and its sales desired price of two or more electric power sale candidates of each, received by the bid part 16. Here, when there are two or more electric power sale candidates who presented the same sales desired price, the competition treating part 20 presupposes that it is sell desired electric energy and its sales desired price at least as Takayoshi about the electric power sale candidate who inputted previously. Then, the competition treating part 20 extracts an electric power sale candidate sequentially from the direction like Takayoshi, and adds each electric power sale candidate's extracted sell desired electric energy concerned. The competition treating part 20 stops summing processing, when the aggregate value of the above-mentioned sell desired electric energy becomes an electric power purchasing applicant's buy desired electric energy, and it determines the electric power sale candidate extracted by then as a winner of the competitive bid at the time. The competition treating part 20 is determined as a successful tenderer of competitive bid of the electric power sale candidate currently extracted, when this processing is repeated till the above-mentioned bid finish time and the bid finish time concerned passes. By performing this processing, the competition treating part 20 determines the specific electric power sale candidate in whom an electric power purchasing applicant should purchase electric power in the above-mentioned time basis out of two or more electric power sale candidates so that the purchase price of an electric power purchasing applicant's electric power may serve as the minimum.

[0022]The progress presentation part 18 presents one by one the sell desired electric energy and the sales desired price of the electric power sale candidate received by the bid part 16 to other electric power sale candidates till the above-mentioned bid finish time. The progress presentation part 18 transmits more the sell desired electric energy and the sales desired price of the above-mentioned electric power sale candidate received by the bid part 16 to details to two or more electric power sale candidates' terminal unit 104 via the Internet 100. Here, two or more above-mentioned electric power sale candidates of each become possible [referring to the sell desired electric energy which other electric power sale candidates inputted on the display of the self terminal unit 104, and its sales desired price]. The progress presentation part 18 the electric power sale candidate determined as a winner of competitive bid in the competition treating part 20 till the above-mentioned bid finish time in each time, its sell desired electric energy, and a sales desired price, The successful tenderer who did updating presentation one by one to two or more electric power sale candidates of each, and was determined by the competition treating part 20 after progress of the above-mentioned bid finish time, its sell

desired electric energy, and a sales desired price are shown to an electric power purchasing applicant and two or more electric power sale candidate of each.

[0023]Then, the electric power bidding method which explains and starts the embodiment of this invention collectively about the procedure of performing an electric power bid using the power bidding system concerning this embodiment is explained. Drawing 2 is a flow chart which shows the procedure of performing an electric power bid using the power bidding system 10 concerning this embodiment.

[0024]When an electric power bid is performed, the buy desired electric energy in a future time basis is first inputted by the electric power purchasing applicant (S12). More, buy desired electric energy is inputted into details using the terminal unit 102, is transmitted via the Internet 100 to them, and is received by the purchase desire power-input part 12 of the power bidding system 10. 1 hour before one day is divided into the time basis of 24 for every hour and each of each time basis more specifically begins, the buy desired electric energy in the time basis concerned is inputted from an electric power purchasing applicant. In this case, the highest purchase price is also inputted collectively.

[0025]If the input of an electric power purchasing applicant's buy desired electric energy and the highest purchase price is received by the buy-desired-electric-energy input part 12, the buy desired electric energy concerned and the highest purchase price will be presented by the buy-desired-electric-energy presentation part 14 to two or more electric power sale candidates (S14). The above-mentioned buy desired electric energy and the highest purchase price are transmitted more to details from the buy-desired-electric-energy presentation part 14 to two or more electric power sale candidates' terminal unit 104 via the Internet 100. Here, two or more above-mentioned electric power sale candidates of each become possible [referring to the above-mentioned buy desired electric energy and the highest purchase price on the display of the self terminal unit 104].

[0026]Two or more electric power sale candidates of each who received presentation of an electric power purchasing applicant's buy desired electric energy perform what is called a bid by inputting the sell desired electric energy and the sales desired price of the electric power sale candidate concerned in the above-mentioned time basis (S16). Two or more electric power sale candidates of each input the self sell desired electric energy in the time basis concerned, and its sales desired price into details using the terminal unit 104 more. The sell desired electric energy inputted from the terminal unit 104 and its sales desired price are transmitted via the Internet 100, and are received by the bid part 16.

[0027]Then, ranking is carried out to the order with a cheap sales desired price which the electric power sale candidate who offered a bid by the competition treating part 20 based on the sell desired electric energy and its sales desired price of two or more electric power sale candidates of each, received by the bid part 16, inputted. Here, when there are two or more electric power sale candidates who presented the same sales desired price, it is supposed that the

electric power sale candidate who inputted previously sell desired electric energy and its sales desired price is at least as Takayoshi. Then, an electric power sale candidate is extracted sequentially from the direction like Takayoshi, and each electric power sale candidate's extracted sell desired electric energy concerned is added. Here, when the aggregate value of the above-mentioned sell desired electric energy becomes an electric power purchasing applicant's buy desired electric energy, summing processing is stopped, and the electric power sale candidate extracted by then is determined as a winner of the competitive bid at the time.

[0028]Then, the sell desired electric energy and the sales desired price of the electric power sale candidate received by the bid part 16 are presented by the progress presentation part 18 to other electric power sale candidates (S18). This presentation is performed one by one, whenever the input of the sell desired electric energy and the sales desired price from an electric power sale candidate is received by the bid part 16. The sell desired electric energy and the sales desired price of the above-mentioned electric power sale candidate received by the bid part 16 are transmitted more to details to two or more electric power sale candidates' terminal unit 104 via the Internet 100. Here, two or more above-mentioned electric power sale candidates of each become possible [referring to the sell desired electric energy which other electric power sale candidates inputted on the display of the self terminal unit 104, and its sales desired price]. They are collectively presented by the electric power sale candidate determined as a winner of the competitive bid at that time in the competition treating part 20 in this case, its sell desired electric energy, and the sales desired price. When total of each electric power sale candidate's sell desired electric energy determined as a winner of the competitive bid at the time is less than an electric power purchasing applicant's buy desired electric energy, difference with total of buy desired electric energy and sell desired electric energy is shown collectively.

[0029]The above-mentioned bidding processing (S16) and progress presentation processing (S18) are repeated till the above-mentioned bid finish time (S20).

[0030]Arrival of the bid finish time concerned will determine an electric power sale candidate currently extracted by the competition treating part 20 when bid finish time passes as a successful tenderer of competitive bid (S22). That is, a specific electric power sale candidate in whom an electric power purchasing applicant should purchase electric power in the above-mentioned time basis is determined out of two or more electric power sale candidates so that the purchase price of an electric power purchasing applicant's electric power may serve as the minimum.

[0031]If a successful tenderer determines, a successful tenderer, its sell desired electric energy, and a sales desired price will be presented by the progress presentation part 18 to an electric power purchasing applicant and two or more electric power sale candidate of each, and an electric power bid will be completed by it.

[0032]Hereafter, a flow until a successful tenderer is determined is explained using an example. In this example, it is an example in a case of offering a competitive bid to an electric power

purchasing applicant's buy desired electric energy in a time basis from <1>:00 to <2>:00 a.m. It is setting to 10:50, time, i.e., bid finish time, predetermined [above-mentioned] before the above-mentioned time basis begins.

[0033]Drawing 3 is a table showing an event generated in this example in a time series.

Drawing 4 - drawing 7 are the tables showing an electric power sale candidate determined by the competition treating part 20 as a winner of competitive bid in as of 10:26, as of 10:30, as of 10:40, and as of 10:49, and its electric energy and price, respectively.

[0034]First, the buy desired electric energy in the time basis concerned will be shown from an electric power purchasing applicant to two or more electric power sale candidates of each at 10:00 which is 1 hour before the above-mentioned time basis begins as shown in drawing 3. buy desired electric energy [in / here / an electric power purchasing applicant's time basis concerned] -- 100 million -- it is kwh(s) and 15 yen / kwh is shown as the highest purchase price.

[0035]A company is offering a bid in response to presentation of this buy desired electric energy by setting a sales desired price to 15 yen / kwh by setting sell desired electric energy to 50 millionkwh at 10:15. B company is offering a bid by setting a sales desired price to 15 yen / kwh by setting sell desired electric energy to 30 millionkwh at 10:20. C company is offering a bid by setting a sales desired price to 15 yen / kwh by setting sell desired electric energy to 15 millionkwh at 10:23. D company is offering a bid by setting a sales desired price to 15 yen / kwh by setting sell desired electric energy to 5 millionkwh at 10:26.

[0036]Here, as of 10:26 when D company offered a bid, as shown in drawing 4, total of the sell desired electric energy of A company, B company, C company, and each D company becomes equal to an electric power purchasing applicant's buy desired electric energy exactly. At this time, A company, B company, C company, and D company are determined as a winner of competitive bid, and an electric power purchasing applicant's electric power purchased amount amounts to 1,500 million yen.

[0037]Then, E shrine which inquired with reference to the sell desired electric energy and the sales desired price of A company, B company, C company, and D company is offering a bid by setting a sales desired price to 14 yen / kwh by setting sell desired electric energy to 20 millionkwh at 10:30 (refer to drawing 3). As a result, as of 10:30 when E company offered a bid, as shown in drawing 5, E shrine which presented the more inexpensive sales desired price is first determined as a winner of competitive bid. Then, although both A company, B company, C company, and D company have presented the sales desired price (15 yen / kwh) of the same amount, since A company and B company have early bid time as compared with C company and D company, A company and B company are determined as a winner of competitive bid, and C company and D company are determined as a loser of competitive bid. At this time, an electric power purchasing applicant's electric power purchased amount changes to 1,480 million yen.

[0038]Then, by bid of E company, it will set a sales desired price to 14 yen / kwh by setting sell desired electric energy to 15 millionkwh at 10:40, and C shrine which became a loser is performing rebidding (refer to drawing 3). As a result, as of 10:40 when C company offered a bid, as shown in drawing 6, E company and C shrine which presented the more inexpensive sales desired price are determined as a winner of competitive bid. Then, although both A company and B company have presented the sales desired price (15 yen / kwh) of the same amount, since A company has early bid time as compared with B company, prior to B company, A company becomes a winner of competitive bid first. Then, although a bid of B company is considered, if the sell desired electric energy concerning a bid of B company is applied, it will exceed an electric power purchasing applicant's buy desired electric energy. When the sell desired electric energy concerning a bid of B company is eliminated thoroughly, it stops on the other hand, fulfilling an electric power purchasing applicant's buy desired electric energy. Therefore, B company is determined as a winner of competitive bid, as far as the portion concerning the sell desired electric energy (15 millions kwh) of difference with total of an electric power purchasing applicant's buy desired electric energy and the sell desired electric energy of E company, C company, and A company is concerned. At this time, an electric power purchasing applicant's electric power purchased amount changes to 1,465 million yen.

[0039]Then, by bid of E company, it will set a sales desired price to 14 yen / kwh by setting sell desired electric energy to 10 millionkwh at 10:49, and D shrine which became a loser is performing rebidding (refer to drawing 3). As a result, as of 10:49 when D company offered a bid, as shown in drawing 7, E company, C company, and D shrine which presented the more inexpensive sales desired price are determined as a winner of competitive bid. Then, although both A company and B company have presented the sales desired price (15 yen / kwh) of the same amount, since A company has early bid time as compared with B company, prior to B company, A company becomes a winner of ***** first. Then, although a bid of B company is considered, if the sell desired electric energy concerning a bid of B company is applied, it will exceed an electric power purchasing applicant's buy desired electric energy. When the sell desired electric energy concerning a bid of B company is eliminated thoroughly, it stops on the other hand, fulfilling an electric power purchasing applicant's buy desired electric energy. Therefore, B company is determined as a winner of competitive bid, as far as the portion concerning the sell desired electric energy (5 millions kwh) of difference with total of an electric power purchasing applicant's buy desired electric energy and the sell desired electric energy of E company, C company, D company, and A company is concerned. At this time, an electric power purchasing applicant's electric power purchased amount changes to 1,455 million yen.

[0040]After there is also no bid from which electric power sale candidate and a bid is completed at 10:50 after 10:49 when D company offered a bid, the winner of the competitive bid at the time of being 10:49 is determined as a successful tenderer. in this case, E company --

14 yen / kwh -- 20 million -- the electric power of kwh(s), and C company -- 14 yen / kwh -- 15 million -- the electric power of kwh(s). D company -- 14 yen / kwh -- 10 million -- the electric power of kwh(s), and A company -- 15 yen / kwh -- 50 million -- the electric power of kwh(s). B company -- 15 yen / kwh -- 5 million -- meaning that the electric power of kwh(s) was knocked down, respectively, an electric power purchasing applicant becomes possible [purchasing the electric power of a total of 100 million kwh(s) by a total of 1,455 million yen]. [0041]When it is large and the power demand amount of the time basis concerned has become insufficient contrary to anticipation in the power supply, an electric power purchasing applicant may decide to purchase the electric power of an insufficiency with a best bid price (15 yen / kwh) from one of electric power sale candidates.

[0042]Then, the operation of a power bidding system and effect concerning this embodiment are explained. The power bidding system 10 concerning this embodiment presents one by one the sell desired electric energy inputted by the electric power sale candidate of 1, and its sales desired price to other electric power sale candidates by the progress presentation part 18. therefore -- being concerned -- others -- after an electric power sale candidate takes into consideration the sell desired electric energy inputted by the sales candidate of the above 1, and its sales desired price, he can determine self sell desired electric energy and its sales desired price, and can offer a bid. As a result, an electric power sale candidate's competition is promoted and it becomes possible to make very inexpensive an electric power purchasing applicant's electric power purchase price.

[0043]The power bidding system 10 concerning this embodiment is enabling registration of the input of multiple times from the same electric power sale candidate by the bid part 16 about sell desired electric energy and its sales desired price. Therefore, after the electric power sale candidate concerned takes into consideration the sell desired electric energy inputted by other electric power sale candidates and its sales desired price, he reconsiders self sell desired electric energy and its sales desired price, and can reoffer a bid. As a result, an electric power sale candidate's competition is promoted further, and it becomes possible to make still more inexpensive an electric power purchasing applicant's electric power purchase price.

[0044]

[Effect of the Invention]The power bidding system and electric power bidding method of this invention, showing one by one the sell desired electric energy inputted by the electric power sale candidate of 1, and its sales desired price to other electric power sale candidates -- being concerned -- others -- an electric power sale candidate, After taking into consideration the sell desired electric energy inputted by the sales candidate of the above 1, and its sales desired price, self sell desired electric energy and its sales desired price can be determined and inputted. As a result, an electric power sale candidate's competition is promoted and it becomes possible to make very inexpensive an electric power purchasing applicant's electric power purchase price.

[0045]In the power bidding system and electric power bidding method of this invention, After

the electric power sale candidate concerned takes into consideration the sell desired electric energy inputted by other electric power sale candidates and its sales desired price, he reconsiders self sell desired electric energy and its sales desired price, and can reinput by enabling registration of the input of multiple times from the same electric power sale candidate. As a result, an electric power sale candidate's competition is promoted further, and it becomes possible to make still more inexpensive an electric power purchasing applicant's electric power purchase price.

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention]This invention relates to a power bidding system and an electric power bidding method.

[Translation done.]

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PRIOR ART

[Description of the Prior Art]Retail-power-sales liberalization is being attained in the flow of the deregulation in these days. For example, in Britain which retail-power-sales liberalization follows, one day is divided into the time basis of 48 for every 30 minutes, and the electric power pool system which bids competitively for electric power for every time basis is introduced. In an electric power pool system, the sell desired electric energy which two or more electric power sale candidates of each want to sell to the time basis concerned (supply), and its sales desired price are first inputted to a power bidding system 24 hours before each above-mentioned time basis. The power bidding system concerned sequentially from the electric power sale candidate who presented the cheap sales desired price among the electric power sale candidates who inputted sell desired electric energy and its sales desired price, It selects as those who can sell electric power to the time basis concerned (supply), and selection is ended in the place where sufficient amount of supply (buy desired electric energy in which an electric power purchasing applicant expects purchase) in the time basis concerned was secured. By selecting those who sell electric power to each time basis using this power bidding system, an electric power purchasing applicant becomes possible [purchasing electric power comparatively inexpensive].

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EFFECT OF THE INVENTION

[Effect of the Invention] The power bidding system and electric power bidding method of this invention, showing one by one the sell desired electric energy inputted by the electric power sale candidate of 1, and its sales desired price to other electric power sale candidates -- being concerned -- others -- an electric power sale candidate, After taking into consideration the sell desired electric energy inputted by the sales candidate of the above 1, and its sales desired price, self sell desired electric energy and its sales desired price can be determined and inputted. As a result, an electric power sale candidate's competition is promoted and it becomes possible to make very inexpensive an electric power purchasing applicant's electric power purchase price.

[0045] In the power bidding system and electric power bidding method of this invention, After the electric power sale candidate concerned takes into consideration the sell desired electric energy inputted by other electric power sale candidates and its sales desired price, he reconsiders self sell desired electric energy and its sales desired price, and can reinput by enabling registration of the input of multiple times from the same electric power sale candidate. As a result, an electric power sale candidate's competition is promoted further, and it becomes possible to make still more inexpensive an electric power purchasing applicant's electric power purchase price.

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TECHNICAL PROBLEM

[Problem to be solved by the invention]However, the power bidding system concerning the above-mentioned conventional technology had a problem as shown below. Namely, in the power bidding system concerning the above-mentioned conventional technology, The sell desired electric energy which two or more electric power sale candidates of each want to sell to the time basis concerned (supply), and its sales desired price are inputted to a power bidding system 24 hours before each above-mentioned time basis, and those who sell electric power to each time basis based on the input result concerned are selected. therefore -- this fact cannot be known, even if it is a case where a more inexpensive sales desired price is shown from other electric power sale candidates after he inputs specific sell desired electric energy and sales desired price -- moreover -- being concerned -- others -- it cannot oppose to an electric power sale candidate, either. Therefore, competition according to other electric power sale candidates' trend cannot be performed, and, as a result, an electric power purchasing applicant's electric power purchase price does not become inexpensive enough.

[0004]Then, this invention solves the above-mentioned problem, promotes an electric power sale candidate's competition, and makes it SUBJECT to provide the power bidding system and electric power bidding method which can make very inexpensive an electric power purchasing applicant's electric power purchase price.

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MEANS

[Means for solving problem]In order to solve an aforementioned problem, a power bidding system of this invention, The 1st input means that is a power bidding system which bids competitively for electric power, and receives an input of buy desired electric energy in future predetermined time from an electric power purchasing applicant, Till the 1st presenting means that presents the above-mentioned buy desired electric energy received by the 1st input means of the above to two or more electric power sale candidates, and predetermined time before the above-mentioned predetermined time begins, Till the above-mentioned predetermined time before the 2nd input means that receives an input of sell desired electric energy and a sales desired price of the electric power sale candidate concerned in the above-mentioned predetermined time, and the above-mentioned predetermined time begin from two or more above-mentioned electric power sale candidates of each, The 2nd presenting means that presents one by one sell desired electric energy and a sales desired price of the above-mentioned electric power sale candidate received by the 2nd input means of the above to other electric power sale candidates, After progress of the above-mentioned predetermined time before the above-mentioned predetermined time begins, based on sell desired electric energy received by the 2nd input means of the above, and its sales desired price, It is characterized by having a determination means to determine a specific electric power sale candidate in whom the above-mentioned electric power purchasing applicant should purchase electric power in the above-mentioned predetermined time out of two or more above-mentioned electric power sale candidates.

[0006]showing one by one sell desired electric energy inputted by electric power sale candidate of 1, and its sales desired price to other electric power sale candidates -- being concerned -- others -- an electric power sale candidate, After taking into consideration sell desired electric energy inputted by sales candidate of the above 1, and its sales desired price, self sell desired electric energy and its sales desired price can be determined and inputted.

[0007]In a power bidding system of this invention, the 2nd input means of the above is good

also considering enabling registration of an input of multiple times from the same electric power sale candidate about the above-mentioned sell desired electric energy and its sales desired price as a feature.

[0008]After the electric power sale candidate concerned takes into consideration sell desired electric energy inputted by other electric power sale candidates and its sales desired price, he reconsiders self sell desired electric energy and its sales desired price, and can reinput by enabling registration of an input of multiple times from the same electric power sale candidate.

[0009]In particular, in a power bidding system of this invention, it is preferred for the above-mentioned determination means to determine a specific electric power sale candidate in whom the above-mentioned electric power purchasing applicant should purchase electric power in the above-mentioned predetermined time out of two or more above-mentioned electric power sale candidates so that the purchase price of the above-mentioned electric power purchasing applicant's electric power may serve as the minimum.

[0010]In order to solve an aforementioned problem, an electric power bidding method of this invention, Are an electric power bidding method which bids competitively for electric power, and an electric power purchasing applicant's terminal unit and two or more electric power sale candidates' of each terminal unit are connected via a network, The 1st input step that receives an input of buy desired electric energy in the above-mentioned electric power purchasing applicant's future predetermined time via the above-mentioned terminal unit, Till predetermined time before the 1st presentation step and above-mentioned predetermined time that shows two or more above-mentioned electric power sale candidates of each the above-mentioned buy desired electric energy received in the 1st input step of the above via the above-mentioned terminal unit begin, Till the 2nd input step that receives an input of sell desired electric energy and a sales desired price of the electric power sale candidate concerned in the above-mentioned electric power sale candidate's above-mentioned predetermined time via the above-mentioned terminal unit, and the above-mentioned predetermined time before the above-mentioned predetermined time begins, After progress of the above-mentioned predetermined time before the 2nd presentation step and above-mentioned predetermined time that presents one by one sell desired electric energy and a sales desired price of the above-mentioned electric power sale candidate received in the 2nd input step of the above to other electric power sale candidates via the above-mentioned terminal unit begin, Based on sell desired electric energy received in the 2nd input step of the above, and its sales desired price, It is characterized by having a determination step which determines a specific electric power sale candidate in whom the above-mentioned electric power purchasing applicant should purchase electric power in the above-mentioned predetermined time out of two or more above-mentioned electric power sale candidates.

[0011]showing one by one the sell desired electric energy inputted by the electric power sale candidate of 1, and its sales desired price to other electric power sale candidates -- being

concerned -- others -- an electric power sale candidate, After taking into consideration the sell desired electric energy inputted by the sales candidate of the above 1, and its sales desired price, self sell desired electric energy and its sales desired price can be determined and inputted.

[0012]In the electric power bidding method of this invention, the 2nd input step of the above is good also considering enabling registration of the input of multiple times from the same electric power sale candidate about the above-mentioned sell desired electric energy and its sales desired price as a feature.

[0013]After the electric power sale candidate concerned takes into consideration the sell desired electric energy inputted by other electric power sale candidates and its sales desired price, he reconsiders self sell desired electric energy and its sales desired price, and can reinput by enabling registration of the input of multiple times from the same electric power sale candidate.

[0014]In the electric power bidding method of this invention, especially the above-mentioned determination step, It is preferred that it is characterized by determining the specific electric power sale candidate in whom the above-mentioned electric power purchasing applicant should purchase electric power in the above-mentioned predetermined time out of two or more above-mentioned electric power sale candidates so that the purchase price of the above-mentioned electric power purchasing applicant's electric power may serve as the minimum.

[0015]

[Mode for carrying out the invention]A power bidding system concerning an embodiment of this invention is explained with reference to Drawings. First, composition of a power bidding system concerning this embodiment is explained. Drawing 1 is a block diagram of a power bidding system concerning this embodiment.

[0016]The power bidding system 10 concerning this embodiment is the buy-desired-electric-energy input part 12.

[Translation done.]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1]It is a block diagram of a power bidding system.

[Drawing 2]It is a flow chart which shows the procedure of an electric power bid.

[Drawing 3]It is a figure showing progress of an electric power bid.

[Drawing 4]It is a figure showing progress of an electric power bid.

[Drawing 5]It is a figure showing progress of an electric power bid.

[Drawing 6]It is a figure showing progress of an electric power bid.

[Drawing 7]It is a figure showing progress of an electric power bid.

[Explanations of letters or numerals]

10 [-- A bid part, 18 / -- A competition treating part, 20 / -- A result presentation part, 22 / -- An interface part, 100 / -- The Internet, 102,104 / -- Terminal unit] -- A power bidding system, 12 -- A buy-desired-electric-energy input part, 14 -- A buy-desired-electric-energy presentation part, 16

[Translation done.]

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DRAWINGS

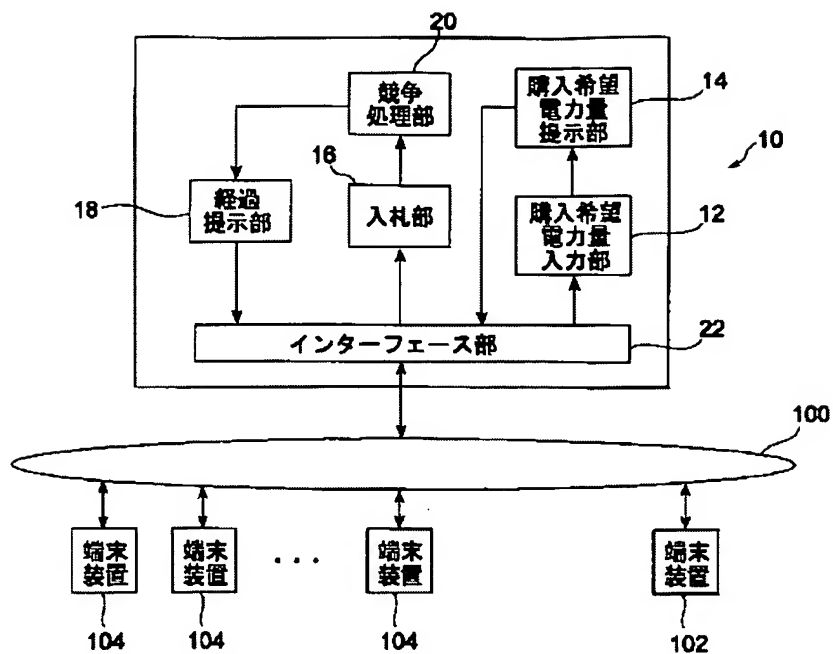
[Drawing 3]

時刻	イベント
10:00	入札開始(購入希望電力量=100百万kwh, 最高購入価格=15円/kwh)
10:15	A社が, 15円/kwhで, 50百万kwhを入札
10:20	B社が, 15円/kwhで, 30百万kwhを入札
10:23	C社が, 15円/kwhで, 15百万kwhを入札
10:28	D社が, 15円/kwhで, 5百万kwhを入札
10:30	E社が, 14円/kwhで, 20百万kwhを入札
10:40	C社が, 14円/kwhで, 15百万kwhを入札
10:49	D社が, 14円/kwhで, 10百万kwhを入札
10:50	入札終了

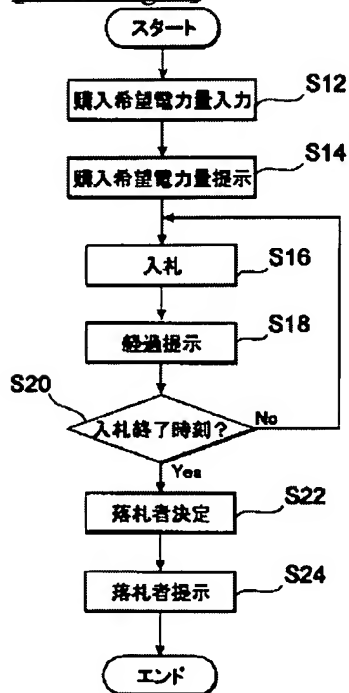
[Drawing 4]

10:28現在	電力量	価格
A社	50百万kwh	15円/kwh
B社	30百万kwh	15円/kwh
C社	15百万kwh	15円/kwh
D社	5百万kwh	15円/kwh
合計	100百万kwh	1500百万円

[Drawing 1]



[Drawing 2]



[Drawing 5]

10:30現在	電力量	価格
E社	20百万kwh	14円/kwh
A社	50百万kwh	15円/kwh
B社	30百万kwh	15円/kwh
合計	100百万kwh	1480百万円

[Drawing 6]

10:40現在	電力量	価格
E社	20百万kwh	14円/kwh
C社	15百万kwh	14円/kwh
A社	50百万kwh	15円/kwh
B社	15百万kwh	15円/kwh
合計	100百万kwh	1485百万円

[Drawing 7]

10:49現在	電力量	価格
E社	20百万kwh	14円/kwh
C社	15百万kwh	14円/kwh
D社	10百万kwh	14円/kwh
A社	50百万kwh	15円/kwh
B社	5百万kwh	15円/kwh
合計	100百万kwh	1455百万円

[Translation done.]